

## LBIR1324

2016-2017

## Animal physiology

3.0 credits	40.0 h + 5.0 h	2q
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Main themes:  The course focuses on the physiology of the main rent animals (ruminants, hog and horse). Comparisons are regularly main humans and carrivories.  Anatomy and physiology of digestion:  Compared anatomy and functional morphology of monogastrics and polygastrics.  Digestive functions and digestive glands: overview Mechanical and chemical digestion and absorption  Endocrinology Anatomy and physiology of reproduction Physiology of lactuation  Aims:  a. Contribution of the activity to the referential (LO) B1.3, B1.5, B3.2, B3.6, B3.7, B4.2, B6.2, B6.3, B8.1, B8.2, B8.5 b. Specific formulation for this activity in the learning outcomes of the programme.  At the end of this activity, the student:  - knows and understands the different arimal species; - is able to describe the role, the mode of action and the regulation of the main hormones: - is able to compare the functioning of the digestive system of omnivores, carnivores and herbivores (mono- and polygic) - is able to compare the functioning of the digestive system of omnivores, carnivores and herbivores (mono- and polygic) - is able to compare the functioning of the digestive system of omnivores, carnivores and herbivores (mono- and polygic) - is able to compare the functioning of the digestive system of omnivores, carnivores and herbivores (mono- and polygic) - is able to compare the characteristics of the reproduction of the main rent animals; - knows and understands the animany and the development of the mammany gland as well as the control of factation; - is able to compare the characteristics of the reproduction of the main rent animals; - knows and understands the animany and the development of the mammany gland as well as the control of lactation; - is able to compare the characteristics of the reproduction and animal physiology; - recombination of this Teaching Unit to the development and command of the skills and learning outcomes of the program- related to animal physiology; - recombination of this Teaching Unit to the development and comma							
Place of the course  Inline resources:  ICampus  Prerequisites:  Basis in embryology, animal physiology, cell and molecular biology as well as biochemistry  The prerequisite for this Teaching Unit (United denseignement – UE) for the programmes/courses that offer this Teach  are specified at the end of this sheet.  Main themes:  The course focuses on the physiology of the main rent animals (ruminants, hog and horse). Comparisons are regularly ma humans and carrivores.  Anatomy and physiology of digestion:  - Compared anatomy and functional morphology of monogastrics and polygastrics  - Digestive functions and digestive glands: overview  - Mechanical and enhemical digestion and absorption  Endocrinology  Anatomy and physiology of reproduction  Physiology of reproduction  Physiology of reproduction  Physiology of physiology of reproduction  Aims:  a. Contribution of the activity to the referential (L.O)  B1.3, B1.5, B3.2, B3.6, B3.7, B4.2, B6.2, B6.3, B8.1, B8.2, B8.5  b. Specific formulation for this activity in the learning outcomes of the programme.  At the end of this activity, the student:  - knows and understands the different steps of mechanical and chemical digestion, regulations associated to the diprocess, as well as absorption in different animal species:  - is able to compare the unclinating of the digestive system of omnivores, carnivores and hetrivores (mono- and polygonia) is able to compare the characteristics of the reproduction of the main hormones;  - is able to compare the characteristics of the reproduction of the main hormones;  - is able to compare the characteristics of the reproduction of the main hormones;  - is able to compare the characteristics of the reproduction of the main information and the repulsion of the similar and reprinting outcomes of the program  - is able to compare the characteristics of the reproduction of the similar and reprinting outcomes of t	Teacher(s):	Debier Cathy (coordinator) ; Donnay Isabelle ;					
Inline resources:  ICampus  Prerequisites:  Basis in embryology, animal physiology, cell and molecular biology as well as biochemistry  The prerequisites () for his Teaching Unit (United d'onseignement – UE) for the programmes/courses that offer this Teaching  are specified at the end of this after.  Main themes:  The course focuses on the physiology of the main rent animals (ruminants, hog and horse). Comparisons are regularly ma  humans and carnivores.  Anatomy and physiology of digestion:  - Compared anatomy and functional imorphology of monogastrics and polygastrics  - Digestive functions and digestive glands: overview  - Mechanical and chemical digestion and absorption  Endocrinology  Anatomy and physiology of reproduction  Physiology of lactation  Endocrinology  Anatomy and physiology of reproduction  Physiology of lactation  - Specific formulation for this activity to the referential (LO)  B13, B15, B32, B32, B35, B37, B42, B82, B63, B81, B82, B85, B  - Specific formulation for this activity in the learning outcomes of the programme.  At the end of this activity, the student:  - knows and understands the different steps of mechanical and chemical digestion, regulations associated to the diprocess, as well as shorpton in different animal species;  - is able to compare the functioning of the digestive system of ornivores, carnivores and hetrivores (mono- and polyge)  - is able to compare the functioning of the digestive system of ornivores, carnivores and hetrivores (mono- and polyge)  - is able to compare the characteristics of the reproduction of the main rent animals;  - knows and understands the anatomy and the development of the main rent animals;  - knows and understands the anatomy and the development of the main rent animals;  - knows and understands the anatomy and the development of the main cent animals;  - knows and understands the anatomy and the development of the main cent animals;  - knows and understands the anatomy and the development of the main cent animals;  - knows and understands the	Language :	Français					
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Teaching methods:  Lectures with active learning activities (guided questions) and concrete examples.  1. Endocrinology and hormonal regulation: description of the structure and mechanisms of action of hormones, hormonal regulation dosages. Hypothalamus-hypophysis axis: hormones of the adenohypophysis and neurohypophysis. Thyroid horn Hormonal regulation of calcium. Adrenal glands: corticoids and catecholamines. Hormonal regulation of glycaemia. 2. Anal the genital tract and physiology of reproduction: Anatomy of the male and female genital tracts. Spermatogenesis. Ovog Fertilization, embryonic development and implantation. Hormones of reproduction. Oestrous cycles in domestic man Physiology of lactation: control of mammogenesis, lactogenesis and galactopoiesis. 3. Anatomy and physiology of dig Comparative digestive physiology (carnivores, omnivores and herbivores). Anatomy and functional morphology of monogened and polygastrics (livestock and free-ranging). Digestive functions and annex glands: global overview of secretions, motive absorption. Forestomachs motility as well as feeding and merycic behaviour of ruminants. 4. Exercises: practical exercises from the study of the anatomy of the digestive tract of monogastrics and polygastrics as well as videos and exercises illustication that theoretical course.  Support: Powerpoint files accessible on the intranet via iCampus. Reference books available to the BST library. Links to well		<ul> <li>is able to compare the functioning of the digestive system of omnivores, carnivores and herbivores (mono- and polygastrics);</li> <li>is able to describe the role, the mode of action and the regulation of the main hormones;</li> <li>is able to describe the oestral cycle and its regulation;</li> <li>is able to compare the characteristics of the reproduction of the main rent animals;</li> <li>knows and understands the anatomy and the development of the mammary gland as well as the control of lactation;</li> <li>is able to connect the different concepts seen during the course in order to address clearly and precisely cross-cutting issues related to animal physiology.</li> <li>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s)</li> </ul>					
Content:  1. Endocrinology and hormonal regulation: description of the structure and mechanisms of action of hormones, hormonal read and dosages. Hypothalamus-hypophysis axis: hormones of the adenohypophysis and neurohypophysis. Thyroid horn Hormonal regulation of calcium. Adrenal glands: corticoids and catecholamines. Hormonal regulation of glycaemia. 2. Anal the genital tract and physiology of reproduction: Anatomy of the male and female genital tracts. Spermatogenesis. Ovog Fertilization, embryonic development and implantation. Hormones of reproduction. Oestrous cycles in domestic ma Physiology of lactation: control of mammogenesis, lactogenesis and galactopoiesis. 3. Anatomy and physiology of dig Comparative digestive physiology (carnivores, omnivores and herbivores). Anatomy and functional morphology of monog and polygastrics (livestock and free-ranging). Digestive functions and annex glands: global overview of secretions, motil absorption. Forestomachs motility as well as feeding and merycic behaviour of ruminants. 4. Exercises: practical exercises for on the study of the anatomy of the digestive tract of monogastrics and polygastrics as well as videos and exercises illust the theoretical course.  Support: Powerpoint files accessible on the intranet via iCampus. Reference books available to the BST library. Links to well	Evaluation methods :	Oral examination with written preparation based on transversal questions.					
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	Bibliography :	Support: Powerpoint files accessible on the intranet via iCampus. Reference books available to the BST library. Links to websites.					

Université Catholique de Louvain - COURSES DESCRIPTION FOR 2016-2017 - LBIR1324

Faculty or entity in	AGRO
charge:	

Programmes / formations proposant cette unité d'enseignement (UE)							
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage			
Bachelor in Bioengineering	BIR1BA	3	LBIO1231A and LBIR1220	Q.			